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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,617	11/12/2003	Shinya Wada	SCEP 20.732 (100809-00225	5866

26304 7590 11/16/2010
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EXAMINER	
TIMBLIN, ROBERT M	

ART UNIT	PAPER NUMBER
2167	

MAIL DATE	DELIVERY MODE
11/16/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/706,617	WADA, SHINYA	
	Examiner	Art Unit	
	ROBERT TIMBLIN	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/30/2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,20-22 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16,20-22 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This office action corresponds to application 10/706,617 filed 11/12/2003.

Response to Amendment

In the response filed 9/30/2010, Applicant amends claims 1-4, 6-14, 16, and 20-22. No claims have been added or cancelled. Claims 1-16, 20-22, and 26 are pending.

Claim Objections

Claims 14 and 22 are objected to because they recite "within the sequence range" in the last line. Examiner submits that "said sequence range" and "the sequence range" lacks antecedent basis. It is noted that the claims do recite "temporary sequence range"; however, the last line makes it unclear whether the temporary sequence range or a different sequence range is intended. For purposes of examination the latter has been interpreted because the positions are updated.

Claims 20 and 22 are objected to because "the computer processor" in the acquiring step lacks antecedent basis.

Clarification and/or correction of the above is respectfully requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-6, 9, 10, 12-14, 16, 20-22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Björn et al ('Björn' hereafter, U.S. Patent 6,714,222) in view of Brosnan et al. ('Brosnan' hereafter, U.S. Patent Application 2004/0002380) in view of Lin et al. ('Lin' hereafter, U.S. Patent 6,610,104) and further in view of Bialek et al. ('Bialek' hereafter, U.S. Patent Application 2002/0138484).

With respect to claim 1, Björn teaches A file processing apparatus (fig. 6) comprising a computer processor (605), said file processing apparatus comprising:

an attribute input unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function wherein each unit of the present invention is taught by a specialized circuit) that acquires (col. 7 lines 55-61 wherein an attribute must be acquired for a comparison between magnets to take place) from the computer processor (605) an attribute value (col. 8, lines 2-6; e.g. properties such as a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) with a set of attributes (col. 7 line 55-col. 8 line 6; e.g. wherein the virtual magnets have virtual weights, masses, and settings), from the computer processor (605) in order to

represent an intended file as having a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45) said set of attributes comprising: the importance of the file set by the user (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user), the type of file determined by data format or file usage (col. 7 lines 66-col. 8 line 2; e.g. magnets used for holding shopping lists and further fig. 4 showing other types of magnets);

a comparison processing unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function), which compares the value of the attribute (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) with a reference value of an environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; therein surrounding magnets interact with one another on a background. Thus surrounding magnets are interpreted as an environment and a relative magnet is seen as a reference value of the environment);

a position determining unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function) which sets a relative display position (Fig. 1) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in the environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; e.g. surrounding magnets are interpreted as an environment), within a range of motion defined by the reference value of the environment (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107 and col. 7 lines 67-61; e.g. magnets can be made to move more quickly with respect to other magnets), wherein the relative display position (col. 7 line 38-col. 8 line 6; e.g. a magnet displayed with respect to another magnet) is set based on a result (col. 7 lines 38-50) obtained from said comparison processing unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function); and

a display processing unit (GUI 611), which visually represents the value of the attribute (Fig. 1 and col. 7 line 66-col. 8 line 2; e.g. a magnet may appear "heavier" or "lighter" according to its property).

Although Björn teaches a relative display position of a predetermined object in an environment, Björn does not appear to expressly teach wherein the relative display position represents the physical density of the attribute relative to the reference value in the environment and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense, wherein the relative an display position of the predetermined object is set by said position determining unit, subject to a buoyancy force of the environment exerted upon the predetermined object visually represented by and wherein the display processing unit,

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment.

Brosnan, however, teaches wherein the relative display position represents density of the attribute relative to the reference value in the environment (0130; e.g. wherein a density property represent an object falling through water and further in 0179 wherein objects are subject to gravity in the environment) and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense (0130 which discloses density and 0074 and 0179-0180 which discloses that density may be dependent on trajectory rules), wherein the relative an display position of the predetermined object (0133; e.g. objects) is set by said position determining unit (0126, 0130), subject to a buoyancy force of the

environment (0130; e.g. buoyancy force of a water environment) exerted upon the predetermined object (0130; e.g. an object falling through water) visually represented by the display processing unit (34),

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment (0130; e.g. an object falling through water) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

Björn teaches a file comprising a set of attributes such as importance set by the user and type of file determined by data format or usage, but Björn does not appear to expressly teach the set of attributes comprising the number of times that the file has been updated the date and time of file preparation, the date and time of a file update.

Lin, however, teaches the set of attributes comprising the number of times that the file has been updated (col. 3 lines 17-19 and Fig. 6 wherein the number of times a document has been updated is incremented) the date and time of file preparation (Fig. 6; e.g. document is created on March 1), the date and time of a file update (Fig. 6; e.g. file is updated on May 1, July 1, and Nov. 1) for providing additional metadata about a file.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Lin would have given Björn and Brosnan additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Lin would have provided better file management and user control.

The combination of Björn and Lin do not appear to teach a parameter indicating the frequency of file updating.

Bialek, however, teaches a parameter indicating the frequency of file updating (fig. 5, drawing reference 178) for providing an update frequency attribute.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Bialek would have given Björn, Brosnan, and Lin additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses

the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Bialek would have provided better file management and user control.

With respect to claim 3, Björn teaches a file processing apparatus according to claim 1, wherein said attribute input unit acquires values of the attribute for a plurality of files (fig. 1; e.g. a plurality of magnets), said comparison processing unit sets a value of an attribute for at least one of the plurality of files to the reference value (col. 7 line 58; e.g. virtual magnet 107 which serves as a reference to other magnets), said position determining unit sets relative display positions of a plurality of objects corresponding to the plurality of files (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107), respectively, and wherein said display processing unit displays the plurality of files at the respective display positions and visually represents the comparison of densities of the files via another object representative of the measurement of the densities (Fig. 1 and col. 7 lines 38-52 and col. 7 lines 55-col. 8 line 3).

With respect to claim 4, Björn teaches a file processing apparatus according to claim 3 wherein said comparison processing unit sets, for a storage area that stores at least one file, the size of the storage area as the reference value (607), said position determining unit sets a relative display position of an object indicative of the storage area according to the size of the storage area, and wherein said display processing unit visually expresses the comparison of data size between files stored and the storage area via the object indicative of the storage area (col. 8 lines 1-3 and Fig. 1, background 101).

With respect to claim 5, Björn teaches a file processing apparatus according to claim 1, wherein said attribute input unit acquires values of an attribute for a plurality of files and said comparison processing unit classifies the plurality of files into a plurality of groups (col. 12 lines 49-51 and col. 5 lines 7-19) according to the respective values of the attribute, and wherein said display processing unit displays the object in an appearance corresponding to the respective groups as categories (fig. 1).

With respect to claim 6, Björn teaches a file processing apparatus according to claim 1, wherein said attribute input unit acquires values of an attribute for a plurality of files (col. 7lines 55-60), said comparison processing unit classifies the plurality of files into a plurality of classes (fig. 1; e.g. “Shopping”, “Food” “Calendar”) col. 12 lines 49-51 and col. 5 lines 7-19 to teach groups as classes) and sequentially compares the values of an attribute for each class (col.7 line 55-col. 8 line 6 that teaches comparison via interaction between magnets), wherein, after relative display positions are temporary determined respectively as positions that initially display objects for the plurality of files (Fig. 1 and col. 7 line 10; e.g. a default position), said position determining unit sequentially updates the relative display positions in a manner such that comparison results for each class are reflected for each class, and wherein said display processing unit varies the display of the objects according to said updating after the plurality of files are displayed at the temporally determined relative display positions (col. 7 lines 38-66).

With respect to claim 9, Björn teaches a file processing apparatus according to claim 1 further comprising:

an instruction receiving unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function) which receives an instruction from a user intending to change the display position of the object as an input section (col. 2 lines 17-25; e.g. a drag or tap operation to relocate an object; and

an effect generator (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function) which causes, based on the instruction, said position determining unit and said display processing unit to process a change in any of position, shape and appearance of the object (col. 2 lines 13-25; e.g. the object is relocated after the user specifies an operation to teach a change position).

With respect to claim 10 Björn teaches A method of processing files in a processing device, comprising:

acquiring from the computer processor (605) an attribute value (col. 8, lines 2-6; e.g. properties such as a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) with a set of attributes (col. 7 line 55-col. 8 line 6; e.g. wherein the virtual magnets have virtual weights, masses, and settings), from the computer processor (605) in order to represent an intended file as having a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said set of attributes comprising: the importance of the file set by the user (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user), the type of file determined by data format or file usage (col. 7 lines 66-col. 8 line 2; e.g. magnets used for holding shopping lists and further fig. 4 showing other types of magnets);

comparing the value of the attribute (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) with a reference value of an environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; therein surrounding magnets interact with one another on a background. Thus surrounding magnets are interpreted as an environment and a relative magnet is seen as a reference value of the environment);

setting a relative display position (fig. 1) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in the environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; e.g. surrounding magnets are interpreted as an environment), within a range of motion defined by the reference value of the environment (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107 and col. 7 lines 67-61; e.g. magnets can be made to move more quickly with respect to other magnets), wherein the relative display position is set based on a result obtained from the comparison step (col. 7 lines 38-50); and

Although Björn teaches a relative display position of a predetermined object in an environment, Björn does not appear to expressly teach wherein the relative display position represents the physical density of the attribute relative to the reference value in the environment and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense, wherein the relative an display position of the predetermined object is set by said position determining unit, subject to a buoyancy force of the environment exerted upon the predetermined object visually represented by and wherein the display processing unit,

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment.

Brosnan, however, teaches wherein the relative display position represents density of the attribute relative to the reference value in the environment (0130; e.g. wherein a density property represent an object falling through water and further in 0179 wherein objects are subject to gravity in the environment) and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense (0130 which discloses density and 0074 and 0179-0180 which discloses that density may be dependent on trajectory rules), wherein the relative an display position of the predetermined object (0133; e.g. objects) is set by said position determining unit (0126, 0130), subject to a buoyancy force of the environment (0130; e.g. buoyancy force of a water environment) exerted upon the predetermined object (0130; e.g. an object falling through water) visually represented by the display processing unit (34),

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment (0130; e.g. an object falling through water) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to

describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

Björn teaches a file comprising a set of attributes such as importance set by the user and type of file determined by data format or usage, but Björn does not appear to expressly teach the set of attributes comprising the number of times that the file has been updated the date and time of file preparation, the date and time of a file update.

Lin, however, teaches the set of attributes comprising the number of times that the file has been updated (col. 3 lines 17-19 and Fig. 6 wherein the number of times a document has been updated is incremented) the date and time of file preparation (Fig. 6; e.g. document is created on March 1), the date and time of a file update (Fig. 6; e.g. file is updated on May 1, July 1, and Nov. 1) for providing additional metadata about a file.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Lin would have given Björn and Brosnan additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Lin would have provided better file management and user control.

The combination of Björn and Lin do not appear to teach a parameter indicating the frequency of file updating.

Bialek, however, teaches a parameter indicating the frequency of file updating (fig. 5, drawing reference 178) for providing an update frequency attribute.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Bialek would have given Björn, Brosnan, and Lin additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Bialek would have provided better file management and user control.

With respect to claim 12, Björn teaches A method of processing files in a processing device, comprising:

acquiring from the computer processor (605) attribute values (col. 8, lines 2-6; e.g. properties such as a weight or number of shopping lists (i.e. size)) for a plurality of intended files (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnets 107 in the context of Björn are seen as files) each with a set of attributes (col. 7 line 55-col. 8 line 6; e.g. wherein the virtual magnets have virtual weights, masses, and settings), in order to represent an intended file as having a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said set of attributes comprising: the importance of the file set by the user (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user), the type of file determined

by data format or file usage (col. 7 lines 66-col. 8 line 2; e.g. magnets used for holding shopping lists and further fig. 4 showing other types of magnets);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) each of the values (col. 7 line 55-col. 8 line 6; e.g. user settings, weights and magnetic values) of the attribute (col. 8 line 5; e.g. property) with a reference value of an environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; therein surrounding magnets interact with one another on a background. Thus surrounding magnets are interpreted as an environment and a relative magnet is seen as a reference value of the environment);

setting, for each of the plurality of files, a relative display position (Fig. 1, magnets positioned on a display) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in the environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; e.g. surrounding magnets are interpreted as an environment), within a range of motion defined by the reference value of the environment (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107 and col. 7 lines 67-61; e.g. magnets can be made to move more quickly with respect to other magnets), wherein each relative display position is set based on a result obtained from the comparison step (col. 7 lines 38-50).

Although Björn teaches a relative display position of a predetermined object in an environment, Björn does not appear to expressly teach wherein the relative display position represents the physical density of the attribute relative to the reference value in the environment and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense, wherein the relative an display position of the

predetermined object is set by said position determining unit, subject to a buoyancy force of the environment exerted upon the predetermined object visually represented by and wherein the display processing unit,

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment.

Brosnan, however, teaches wherein the relative display position represents density of the attribute relative to the reference value in the environment (0130; e.g. wherein a density property represent an object falling through water and further in 0179 wherein objects are subject to gravity in the environment) and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense (0130 which discloses density and 0074 and 0179-0180 which discloses that density may be dependent on trajectory rules), wherein the relative an display position of the predetermined object (0133; e.g. objects) is set by said position determining unit (0126, 0130), subject to a buoyancy force of the environment (0130; e.g. buoyancy force of a water environment) exerted upon the predetermined object (0130; e.g. an object falling through water) visually represented by the display processing unit (34),

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment (0130; e.g. an object falling through water) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

Björn teaches a file comprising a set of attributes such as importance set by the user and type of file determined by data format or usage, but Björn does not appear to expressly teach the set of attributes comprising the number of times that the file has been updated the date and time of file preparation, the date and time of a file update.

Lin, however, teaches the set of attributes comprising the number of times that the file has been updated (col. 3 lines 17-19 and Fig. 6 wherein the number of times a document has been updated is incremented) the date and time of file preparation (Fig. 6; e.g. document is created on March 1), the date and time of a file update (Fig. 6; e.g. file is updated on May 1, July 1, and Nov. 1) for providing additional metadata about a file.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Lin

would have given Björn and Brosnan additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Lin would have provided better file management and user control.

The combination of Björn and Lin do not appear to teach a parameter indicating the frequency of file updating.

Bialek, however, teaches a parameter indicating the frequency of file updating (fig. 5, drawing reference 178) for providing an update frequency attribute.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Bialek would have given Björn, Brosnan, and Lin additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Bialek would have provided better file management and user control.

With respect to claim 13, Björn teaches a method of processing files according to claim 12, wherein said acquiring further acquires, for a storage area that stores at least one file, the size of the storage area (607), and said setting sets the relative display position of at least one object corresponding to the at least one file, based on a comparison result obtained by comparing a data size between the at least one object and the storage area (col. 5 lines 1-6; e.g. it is interpreted that

a magnet holding several shopping lists and being displayed as "heavier" teaches that magnet occupies more storage space), and wherein said displaying and expressing represents visually the comparison result via the object (col. 8 lines 1-3 and Fig. 1, background 101).

With respect to claim 14, Björn teaches A method of processing files in a processing device, comprising:

acquiring from the computer processor (605) an attribute value (col. 8, lines 2-6; e.g. properties such as a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) with a set of attributes (col. 7 line 55-col. 8 line 6; e.g. wherein the virtual magnets have virtual weights, masses, and settings), from the computer processor (605) in order to represent an intended file as having a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said set of attributes comprising: the date and time of file preparation, the importance of the file set by the user (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user), the type of file determined by data format or file usage (col. 7 lines 66-col. 8 line 2; e.g. magnets used for holding shopping lists and further fig. 4 showing other types of magnets),;

comparing the value of the attribute (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) with a reference value of an environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; therein surrounding magnets interact with one another on a background. Thus surrounding magnets are interpreted as an environment and a relative magnet is seen as a reference value of the environment);

setting, for each of the plurality of files (Fig. 1, magnets), a temporary sequence range (col. 7 lines 38-61; e.g. magnets relative to each other), said sequence range defined by the reference value (col. 7 lines 38-61; e.g. magnets relative to each other)

displaying the predetermined object that represents the file (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center), at the temporary display position on a screen (Fig. 1; e.g. positions of magnets before they are moved);

comparing the values of the predetermined attribute between adjacent files in the temporary sequence (col. 7 lines 38-61; e.g. magnet interaction);

updating the display position based on a comparison result of comparing adjacent files (col. 7 lines 55-61; e.g. magnet movement).

Although Björn teaches a temporary sequence range, they do not appear to teach

determining, based on the temporary sequence range, a temporary display position of a predetermined object that symbolically represents one of the files in terms of whether the density thereof is more or less dense;

visually representing the value of the attribute in terms of whether the density of each predetermined object is more or less dense, wherein the relative display position of the predetermined object is set, subject to a buoyancy force of the environment exerted upon the temporary display position, and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object from the temporary display position to the updated display position within the sequence range.

Brosnan, however, teaches determining, based on the temporary sequence range, a temporary display position of a predetermined object that symbolically represents one of the files in terms of whether the density thereof is more or less dense;

visually representing the value of the attribute in terms of whether the density of each predetermined object is more or less dense (0130 which discloses density and 0074 and 0179-0180 which discloses that density may be dependent on trajectory rules), wherein the relative display position of the predetermined object is set, subject to a buoyancy force of the environment exerted upon the temporary display position (0130; e.g. buoyancy force of a water environment), and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object from the temporary display position to the updated display position within the sequence range (0130; e.g. an object falling through water).

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

Björn teaches a file comprising a set of attributes such as importance set by the user and type of file determined by data format or usage, but Björn does not appear to expressly teach the set of attributes comprising the number of times that the file has been updated the date and time of file preparation, the date and time of a file update.

Lin, however, teaches the set of attributes comprising the number of times that the file has been updated (col. 3 lines 17-19 and Fig. 6 wherein the number of times a document has been updated is incremented) the date and time of file preparation (Fig. 6; e.g. document is created on March 1), the date and time of a file update (Fig. 6; e.g. file is updated on May 1, July 1, and Nov. 1) for providing additional metadata about a file.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Lin would have given Björn and Brosnan additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Lin would have provided better file management and user control.

The combination of Björn and Lin do not appear to teach a parameter indicating the frequency of file updating.

Bialek, however, teaches a parameter indicating the frequency of file updating (fig. 5, drawing reference 178) for providing an update frequency attribute.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to

combine the teachings of the cited references because the additional attributes as provided by Bialek would have given Björn, Brosnan, and Lin additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Bialek would have provided better file management and user control.

With respect to claim 16, Björn teaches a method of processing files according to claim 10, further comprising: acquiring an instruction from a user intending to display the motion of the object; and changing at least one of position, shape or appearance of the object, based on the instruction (col. 2 lines 13-25).

With respect to claim 20, Björn teaches A computer-readable recording medium that stores a program executable by a computer, the program including the functions of:

acquiring from the computer processor (605) an attribute value (col. 8, lines 2-6; e.g. properties such as a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) with a set of attributes (col. 7 line 55-col. 8 line 6; e.g. wherein the virtual magnets have virtual weights, masses, and settings), in order to represent an intended file as having a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said set of attributes comprising: the date and time of a file update the importance of the file set by the user (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user), the type

of file determined by data format or file usage (col. 7 lines 66-col. 8 line 2; e.g. magnets used for holding shopping lists and further fig. 4 showing other types of magnets);

comparing the value of the attribute (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) with a reference value of an environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; therein surrounding magnets interact with one another on a background. Thus surrounding magnets are interpreted as an environment and a relative magnet is seen as a reference value of the environment);

setting a relative display position (fig. 1) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in the environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; e.g. surrounding magnets are interpreted as an environment), within a range of motion defined by the reference value of the environment (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107 and col. 7 lines 67-61; e.g. magnets can be made to move more quickly with respect to other magnets), wherein the relative display position is set based on a result obtained from the comparison step (col. 7 lines 38-50); and

Although Björn teaches a relative display position of a predetermined object in an environment, Björn does not appear to expressly teach wherein the relative display position represents the physical density of the attribute relative to the reference value in the environment and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense, wherein the relative an display position of the predetermined object is set by said position determining unit, subject to a buoyancy force of the

environment exerted upon the predetermined object visually represented by and wherein the display processing unit,

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment.

Brosnan, however, teaches wherein the relative display position represents density of the attribute relative to the reference value in the environment (0130; e.g. wherein a density property represent an object falling through water and further in 0179 wherein objects are subject to gravity in the environment) and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense (0130 which discloses density and 0074 and 0179-0180 which discloses that density may be dependent on trajectory rules), wherein the relative an display position of the predetermined object (0133; e.g. objects) is set by said position determining unit (0126, 0130), subject to a buoyancy force of the environment (0130; e.g. buoyancy force of a water environment) exerted upon the predetermined object (0130; e.g. an object falling through water) visually represented by the display processing unit (34),

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment (0130; e.g. an object falling through water) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the

data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

Björn teaches a file comprising a set of attributes such as importance set by the user and type of file determined by data format or usage, but Björn does not appear to expressly teach the set of attributes comprising the number of times that the file has been updated the date and time of file preparation, the date and time of a file update.

Lin, however, teaches the set of attributes comprising the number of times that the file has been updated (col. 3 lines 17-19 and Fig. 6 wherein the number of times a document has been updated is incremented) the date and time of file preparation (Fig. 6; e.g. document is created on March 1), the date and time of a file update (Fig. 6; e.g. file is updated on May 1, July 1, and Nov. 1) for providing additional metadata about a file.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Lin would have given Björn and Brosnan additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the

need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Lin would have provided better file management and user control.

The combination of Björn and Lin do not appear to teach a parameter indicating the frequency of file updating.

Bialek, however, teaches a parameter indicating the frequency of file updating (fig. 5, drawing reference 178) for providing an update frequency attribute.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Bialek would have given Björn, Brosnan, and Lin additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Bialek would have provided better file management and user control.

With respect to claim 21, Björn teaches A computer-readable recording medium that stores a program executable by a computer, the program including the functions of:

acquiring attribute values (col. 8, lines 2-6; e.g. properties such as a weight or number of shopping lists (i.e. size)) for a plurality of intended files (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnets 107 in the context of Björn are seen as files) each with a set of attributes (col. 7 line 55-col. 8 line 6; e.g. wherein the virtual magnets have virtual weights, masses, and settings), in order to represent an intended file as having a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said set of attributes comprising: the date and time of a file

update the importance of the file set by the user (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user), the type of file determined by data format or file usage (col. 7 lines 66-col. 8 line 2; e.g. magnets used for holding shopping lists and further fig. 4 showing other types of magnets);

comparing (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) each of the values (col. 7 line 55-col. 8 line 6; e.g. user settings, weights and magnetic values) of the attribute (col. 8 line 5; e.g. property) with a reference value of an environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; therein surrounding magnets interact with one another on a background. Thus surrounding magnets are interpreted as an environment and a relative magnet is seen as a reference value of the environment);

setting, for each of the plurality of files, a relative display position (Fig. 1, magnets positioned on a display) of a predetermined object (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center) in the environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; e.g. surrounding magnets are interpreted as an environment), within a range of motion defined by the reference value of the environment (col. 7 line 45-49; e.g. the display of another magnet relative to magnet 107 and col. 7 lines 67-61; e.g. magnets can be made to move more quickly with respect to other magnets), wherein each relative display position is set based on a result obtained from the comparison step (col. 7 lines 38-50).

Although Björn teaches a relative display position of a predetermined object in an environment, Björn does not appear to expressly teach wherein the relative display position represents the physical density of the attribute relative to the reference value in the environment

and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense, wherein the relative an display position of the predetermined object is set by said position determining unit, subject to a buoyancy force of the environment exerted upon the predetermined object visually represented by and wherein the display processing unit,

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative display position within the range of motion set forth in the environment.

Brosnan, however, teaches wherein the relative display position represents density of the attribute relative to the reference value in the environment (0130; e.g. wherein a density property represent an object falling through water and further in 0179 wherein objects are subject to gravity in the environment) and visually representing the value of the attribute in terms of whether the density of the predetermined object is more or less dense (0130 which discloses density and 0074 and 0179-0180 which discloses that density may be dependent on trajectory rules), wherein the relative an display position of the predetermined object (0133; e.g. objects) is set by said position determining unit (0126, 0130), subject to a buoyancy force of the environment (0130; e.g. buoyancy force of a water environment) exerted upon the predetermined object (0130; e.g. an object falling through water) visually represented by the display processing unit (34),

and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object at the relative

display position within the range of motion set forth in the environment (0130; e.g. an object falling through water) for providing a realistic display.

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

Björn teaches a file comprising a set of attributes such as importance set by the user and type of file determined by data format or usage, but Björn does not appear to expressly teach the set of attributes comprising the number of times that the file has been updated the date and time of file preparation, the date and time of a file update.

Lin, however, teaches the set of attributes comprising the number of times that the file has been updated (col. 3 lines 17-19 and Fig. 6 wherein the number of times a document has been updated is incremented) the date and time of file preparation (Fig. 6; e.g. document is created on March 1), the date and time of a file update (Fig. 6; e.g. file is updated on May 1, July 1, and Nov. 1) for providing additional metadata about a file.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Lin would have given Björn and Brosnan additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Lin would have provided better file management and user control.

The combination of Björn and Lin do not appear to teach a parameter indicating the frequency of file updating.

Bialek, however, teaches a parameter indicating the frequency of file updating (fig. 5, drawing reference 178) for providing an update frequency attribute.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Bialek would have given Björn, Brosnan, and Lin additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Bialek would have provided better file management and user control.

With respect to claim 22, Björn teaches A computer-readable recording medium that stores a program executable by a computer, the program including the functions of:

acquiring from the computer processor (605) an attribute value (col. 8, lines 2-6; e.g. properties such as a weight or number of shopping lists (i.e. size)) for at least one file (col. 5 lines 35-54 and col. 7 line 64-col. 8 line 2; e.g. a virtual magnet 107 in the context of Björn is seen as a file) with a set of attributes (col. 7 line 55-col. 8 line 6; e.g. wherein the virtual magnets have virtual weights, masses, and settings), in order to represent an intended file as having a physical weight (col. 3 lines 10-12 and col. 4 lines 44-45), said set of attributes comprising: the date and time of a file update the importance of the file set by the user (col. 8, lines 2-6; e.g. a weight, wherein the weight may be set by a user to teach an importance set by the user), the type of file determined by data format or file usage (col. 7 lines 66-col. 8 line 2; e.g. magnets used for holding shopping lists and further fig. 4 showing other types of magnets);

comparing the value of the attribute (col. 7 lines 60-61 wherein the interaction with other magnets teaches comparison) with a reference value of an environment (Fig. 1 drawing reference 101 and col. 7 line 55 to col. 8 line 6; therein surrounding magnets interact with one another on a background. Thus surrounding magnets are interpreted as an environment and a relative magnet is seen as a reference value of the environment);

setting, for each of the plurality of files (Fig. 1, magnets), a temporary sequence range (col. 7 lines 38-61; e.g. magnets relative to each other), said sequence range defined by the reference value (col. 7 lines 38-61; e.g. magnets relative to each other)

displaying the predetermined object that represents the file (col. 5 line 39-40; wherein the magnets are represented by circular shapes with a pictogram in the center), at the temporary display position on a screen (Fig. 1; e.g. positions of magnets before they are moved);

comparing the values of the predetermined attribute between adjacent files in the temporary sequence (col. 7 lines 38-61; e.g. magnet interaction);

updating the display position based on a comparison result of comparing adjacent files (col. 7 lines 55-61; e.g. magnet movement).

Although Björn teaches a temporary sequence range, they do not appear to teach

determining, based on the temporary sequence range, a temporary display position of a predetermined object that symbolically represents one of the files in terms of whether the density thereof is more or less dense;

visually representing the value of the attribute in terms of whether the density of each predetermined object is more or less dense, wherein the relative display position of the predetermined object is set, subject to a buoyancy force of the environment exerted upon the temporary display position, and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object from the temporary display position to the updated display position within the sequence range.

Brosnan, however, teaches determining, based on the temporary sequence range, a temporary display position of a predetermined object that symbolically represents one of the files in terms of whether the density thereof is more or less dense;

visually representing the value of the attribute in terms of whether the density of each predetermined object is more or less dense (0130 which discloses density and 0074 and 0179-0180 which discloses that density may be dependent on trajectory rules), wherein the relative display position of the predetermined object is set, subject to a buoyancy force of the environment exerted upon the temporary display position (0130; e.g. buoyancy force of a water

environment), and wherein the buoyancy force of the environment exerted upon the predetermined object is in at least one direction in order to display the predetermined object from the temporary display position to the updated display position within the sequence range (0130; e.g. an object falling through water).

Accordingly, in the same field of endeavor, (i.e. representing objects in an interactive environment based upon properties), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Brosnan would have given Björn additional and alternative methods to describe a motion of an object (i.e. such as density) for a more friendly and user interactive system to display objects based on attributes. Further, Bjorn shows a need to represent density (col. 8, lines 1-5) wherein they describe a magnet holding one versus a magnet holding several shopping lists (i.e. shopping lists per magnet is interpreted as a "density") and col. 4 line 44-45 wherein they disclose a desire to display a metaphor of the physical world. Thus a more realistic representation would have been provided as desired by Björn.

Björn teaches a file comprising a set of attributes such as importance set by the user and type of file determined by data format or usage, but Björn does not appear to expressly teach the set of attributes comprising the number of times that the file has been updated the date and time of file preparation, the date and time of a file update.

Lin, however, teaches the set of attributes comprising the number of times that the file has been updated (col. 3 lines 17-19 and Fig. 6 wherein the number of times a document has been updated is incremented) the date and time of file preparation (Fig. 6; e.g. document is

created on March 1), the date and time of a file update (Fig. 6; e.g. file is updated on May 1, July 1, and Nov. 1) for providing additional metadata about a file.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Lin would have given Björn and Brosnan additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Lin would have provided better file management and user control.

The combination of Björn and Lin do not appear to teach a parameter indicating the frequency of file updating.

Bialek, however, teaches a parameter indicating the frequency of file updating (fig. 5, drawing reference 178) for providing an update frequency attribute.

Accordingly, in the same field of endeavor, (i.e. file management), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the additional attributes as provided by Bialek would have given Björn, Brosnan, and Lin additional properties on which to manage files (e.g. objects/magnets) and further, more options on which to display behavior. Björn discloses the need for more properties in col. 8 lines 5-6. Thus in the combination of the references, Bialek would have provided better file management and user control.

With respect to claim 26, Bjorn teaches the file processing apparatus according to Claim 1, wherein the attribute includes a data size (col. 8 lines 1-2; e.g. one and several shopping lists describes a data size).

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorn, Brosnan, Lin, and Bialek as applied to claims 1 and 10 above and in further view of Vaananen et al. (Vaananen hereinafter) U.S. Patent Application 2002/0175896 A1.

With respect to claim 2 and similar claim 11, Bjorn fails to teach a file processing apparatus according further including an inclination detector which detects inclination of a predetermined region in the file processing apparatus operated by a user, wherein according to the inclination detected by said inclination detector said position determining unit varies the relative display position and the direction in which the virtual force is exerted.

Vaananen, however, teaches this limitation as element 50 of figures 2 and 5 and paragraph 0078. Therein an accelerator sensor is disclosed to measure tilting movements.

It would have been obvious to one of ordinary skill in the data and display processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Vaananen would have provided Bjorn's, Brosnan's, Lin's, and Bialek's system with the ability to vary a relative display position to obtain an easier to use user interface. Vaananen suggests in paragraph 0010 a provision of adjusting a display view in a manner as natural as possible. Bjorn suggests in column 4, lines 44-45, a need to be able to implement metaphors of

the physical world and further in col. 13 line 35 that the invention can be implemented on a portable device (e.g. a Cordless Screen Phone).

Claims 7, 8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorn, Brosnan, Lin, and Bialek as applied to claims 1 and 12 above and further in view of Adler et al ("Adler" hereinafter) U.S. Patent 6,340,957.

With respect to claim 7 and similar claims 8 and 15, Bjorn teaches a file processing apparatus as applied to claims 1, 3-6, 9, 10, 12-14, 16, 20-22, and 26 above.

Bjorn fails to teach a file processing apparatus further including a vibration detector which detects a swaying motion at a predetermined region of the file processing apparatus operated by a user, wherein said comparison processing unit performs a comparison processing when the motion is detected, and said position determining unit updates the relative display position according to the result obtained from said comparison processing unit.

Adler, however, teaches these limitations from at least (col. 15 lines 15-22). Therein displayed data is manipulated according to vibration for accessing and managing data in a straightforward manner.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because this feature of Adler would have satisfied Bjorn's and Brosnan's, Lin's, and Bialek's need for accessing and managing data in a natural manner which is needed by Bjorn (column 4 lines 44-45) for the benefit of displaying relationships between files in a user friendly display.

Response to Arguments

Applicant's arguments filed 9/13/2010 have been fully considered but they are not persuasive.

Claim 1

Applicant argues on page 21 of the remarks that both Bjorn and Brosnan are silent as to the relative display position representing density of the attribute relative to an environmental reference value.

Examiner respectfully disagrees and submits that Bjorn teaches a reference value of an environment by displaying and moving magnets according to surrounding magnets (i.e. this is seen as an environment) based on their properties (which may be seen as attributes) - see Fig. 1 and col. 7 line 55 to col. 8 line 6; however Bjorn does not appear to teach density of an attribute relative to the reference value in the environment. Examiner submits that at least Brosnan teaches this aspect as wherein the relative display position represents density of the attribute relative to the reference value in the environment (0130; e.g. wherein a density property represent an object falling through water and further in 0179 wherein objects are subject to gravity in the environment).

Thus, Brosnan is seen to teach an environment such as water wherein objects carrying a density attribute are positioned and moved accordingly. Furthermore, Examiner submits that Brosnan teaches an environment when they describe gravitational forces applied to virtual objects (paragraph 0179). Accordingly, it can be reasonably interpreted that these environments

serve as reference values because the objects in Brosnan are positioned within and react to the environmental conditions.

Also on page 21, Applicant asserts that Bjorn does not teach a reference value of an environment. As discussed above, Bjorn teaches interactions between magnets (seen as files) and accordingly Examiner interprets that the surrounding magnets in a background (Fig. 1) describe the claimed reference value of an environment. For example, a first magnet reacts to another magnet (see col. 7 lines 38-61) whereas the second magnet may be seen as a reference value. Because the first magnet reacts to a second, it can be reasonably interpreted that the first magnet reacts in reference to a second one. Furthermore, the surrounding magnets can be seen as an environment in that they contribute to the surroundings of each other (see Fig. 1 displaying such an environment).

Applicant additionally argues on page 22 that Bjorn does not teach that the relative display position represents the density of the attribute relative to the reference value in the environment, wherein the relative display position is set based on a result of the comparison processing unit.

Examiner respectfully disagrees and submits that Brosnan teaches the representation of density compared to a reference value of the environment as aforementioned.

Furthermore, as seen in the rejection above, Examiner submits that Bjorn teaches wherein the relative display position (col. 7 line 38-col. 8 line 6; e.g. a magnet displayed with respect to

another magnet) is set based on a result (col. 7 lines 38-50) obtained from said comparison processing unit (col. 3 lines 47-50; e.g. a specialized circuit performing an specialized function).

Therein, magnets in Bjorn are displayed in positions relative to other magnets. For example, the magnets may repel or attract each other (see col. 7 lines 38-52) or move with respect to each in comparison of their weights (see col. 7 line 55 to col. 8 line 6). Therefore, from their comparison, a relative display position is set.

On page 23 of the arguments, Applicant argues that, in Bjorn, the relative display position is based solely on user interaction, or rather, the place where the user places the magnet.

Examiner respectfully disagrees and submits that the magnets react to each other (such as effecting an attraction or repelling motion, see col. 7 lines 38-61) and thus the environment of the magnets (e.g. surrounding magnets) are seen to set a relative display position.

Lastly, on pages 23-24, Applicant argues that Bjorn is silent as to a weight representing importance.

Examiner respectfully disagrees and submits that Bjorn teaches that a weight is assigned to a magnet by a user (see col. 7 lines 4-5). As can be reasonably interpreted, the importance value of the present claims may be appreciated by one of ordinary skill in the art as merely a value (that is user-assigned) attributed to a file. Examiner respectfully submits that the claim is not specific as to setting importance relative to any other value; rather the claim recites that the importance is an attribute assigned to the user.

Accordingly, Examiner submits that the magnet is assigned a weight by a user. Further, because this weight causes the magnets to be distinguished from each other at least based on their movement, and because this weight effects a position of an object when compared to a reference value of an environment, Examiner submits that Bjorn teaches the importance as claimed.

Additionally, on page 24-25, Applicant argues that Bjorn and Brosnan are silent as to the set of attributes. In light of the new grounds of rejection[1] now incorporating the Lin and Bialek references, Examiner submits that this argument is moot.

Independent claims 10, 12, 14, and 20-22 recite similar subject matter as claim 1 and therefore the arguments a have been found unpersuasive and/or moot as mentioned above. Arguments to respective depending claims addressed on pages 26-28 have been found unpersuasive and/or moot in light of the above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,977,974 issued to Hatori et al. The subject matter disclosed therein pertains to the pending claims (i.e. time of file update/creation).

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[1] i.e. the claims have been amended to require ***all*** attributes of the set, rather than at least one, are included

U.S. Patent Application 2003/0014568 filed by Kishi et al. The subject matter disclosed therein pertains to the pending claims (i.e. number of times a file has been updated attribute).

U.S. Patent Application 2002/0105517 filed by Maruyama. The subject matter disclosed therein pertains to the pending claims (i.e. floating objects in three dimensional space).

U.S. Patent 6,388,655 issued to Leung. The subject matter disclosed therein pertains to the pending claims (i.e. virtual mass of an object and physical properties).

U.S. Patent 5,835,094 issued to Ermel et al. The subject matter disclosed therein pertains to the pending claims (i.e. objects representing documents in an environment).

U.S. Patent 7,278,115 issued to Conway. The subject matter disclosed therein pertains to the pending claims (i.e. data thumbnails in a "water" environment wherein their location is based on object metadata - see abstract).

Applicant's arguments have been found unpersuasive and the amendments have necessitated a new ground of rejection. **Accordingly, THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-Th 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TIMBLIN/

Examiner, Art Unit 2167